

IN THE CLAIMS

Please replace pending claims 1-3, 10, 11, 15, 18, 33-36, 43, 44, and 48 with the following clean but amended claims.

B3 1. (Twice Amended) A method of determining whether a member of a pool of cloned test transcription factor polynucleotides encodes a pathway transcription factor, the method comprising introducing into a cell a nucleic acid comprising a promoter of a pathway gene operably linked to a reporter gene; introducing a member of the pool of cloned test transcription factor polynucleotides; and detecting expression of said reporter gene in the cell, thereby determining whether a member of the cloned test transcription factor polynucleotide pool encodes a pathway transcription factor.

2. (Amended) The method of claim 1, wherein a member of the cloned test transcription factor polynucleotide pool is selected on the basis of structural similarity to a known transcription factor for a pathway gene.

3. (Amended) The method of claim 1, wherein a member of the cloned test transcription factor polynucleotide pool is selected without regard to structural similarity to a known transcription factor for a pathway gene.

4. (Amended) The method of claim 1, wherein said cloned test transcription factor polynucleotide is from a plant.

B4 11. (Amended) The method of claim 1, wherein said cloned test transcription factor polynucleotide is expressed transiently in the cell.

B5 15. (Amended) The method of claim 1, wherein said promoter is the promoter of a biosynthetic pathway gene of a plant that produces secondary metabolites.

B6 18. (Amended) The method of claim 1, further comprising deconvoluting the pool of cloned test transcription factor polynucleotides to identify the minimum number

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of cloned test transcription factor polynucleotides necessary to detect expression from said pathway gene promoter.

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33. (Twice Amended) A method of determining whether two or more members of a pool of cloned test transcription factor polynucleotides are required for expression from a pathway gene promoter, the method comprising introducing into a cell a nucleic acid comprising a biosynthetic pathway gene promoter operably linked to a reporter gene; introducing a pool of cloned test transcription factor polynucleotides; and detecting expression from said biosynthetic pathway gene promoter in the cell, thereby determining whether two or more members of the cloned test transcription factor polynucleotide pool are required for expression from said promoter.

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34. (Amended) The method of claim 33, further comprising deconvoluting the pool of cloned test transcription factor polynucleotides to identify the minimum number of cloned test transcription factor polynucleotides necessary to detect expression from said pathway gene promoter.

35. (Amended) The method of claim 33, wherein a member of the cloned test transcription factor polynucleotide pool is selected on the basis of structural similarity to a known transcription factor for a pathway gene.

36. (Amended) The method of claim 33, wherein a member of the cloned test transcription factor polynucleotide pool is selected without regard to structural similarity to a known transcription factor for a pathway gene.

43. (Amended) The method of claim 33, wherein said cloned test transcription factor polynucleotide is from a plant.

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44. (Amended) The method of claim 33, wherein said cloned test transcription factor polynucleotide is expressed transiently in the cell.

48. (Amended) The method of claim 33, wherein said promoter is the promoter  
of a biosynthetic pathway gene of a plant that produces secondary metabolites.